TAKE TIME FOR SAFETY

"Working In The Heat"

Trainer Outline

1. **This safety session will teach employees to:**
   - Recognize the hazards and symptoms of working in heat.
   - Reduce risks of working in hot temperatures and respond to danger signals.

   Heat exhaustion can occur when you are in hot environments and fail to take in enough fluids, salts or both. And even worse, this can lead to a life-threatening condition called heat stroke. Heat stroke happens when the body fails to regulate its core temperature. At this point, the body stops cooling itself through perspiration and can't get rid of excess heat. The result can be death if the body temperature isn't lowered!

2. **Working in hot conditions, indoors or outdoors, creates health risks**
   - Heat cramps - painful muscle spasms. Tired muscles are most susceptible to cramping. Heat cramps are caused when workers drink large quantities of water but fail to take in enough salt to replace the salt their body lost through sweating.
   - Heat exhaustion occurs when the body can't replace fluids and/or salt lost in sweating. - Perspiration in heat is important, because it cools the body as it evaporates. Symptoms include moist, clammy skin, profuse sweating, extreme weakness or fatigue, dry mouth, dizziness, fast pulse, rapid breathing, muscle cramps and nausea.
   - Heat or sunstroke occurs when the body no longer sweats and holds so much heat that body temperature reaches dangerous levels. Heat stroke is a medical emergency and can lead to delirium, convulsions, unconsciousness, or even death. Symptoms are a very high body temperature (104 degrees F or higher; lack of sweat; mental confusion, delirium, or hallucinations; deep breathing and rapid pulse; hot, dry, red or mottled skin; and dilated pupils. Seek medical help immediately and keep the person cool with water until help arrives.

3. **Factors that can increase the risk of these types of heat stress include:**
   - Physical exertion,
   - Being unaccustomed to working in heat,
   - Wearing protective clothing that traps body heat,
   - Age, older people may have less body water and lower sweat gland efficiency.
   - Being overweight, which makes you use more energy to perform tasks, and/or
   - Medications that can interfere with normal body reactions to heat.

4. **Take precautions to avoid heat stress when working in hot conditions**

   For work outdoors in the heat or indoors in laundries, foundries, or other hot areas:
   - Gradually adjust to heat when new to a job or after a two-week or longer absence. Take about five days to gradually build up time spent working in heat.
   - Use general ventilation, cooling fans, and evaporative cooling whenever possible.
   - Shield furnaces and other heat producing equipment.
   - Check for and eliminate any steam leaks.
   - Plan the most strenuous work for the coolest parts of the day.
   - Wear loose, lightweight, light colored clothes. - Wear a hat and use sunscreen to work outdoors.
   - Drink water steadily before and during work in the heat. - Drink about 16 oz. before starting, and 5-7 oz. every 15 or 20 minutes during hot work.
   - Eat well -balanced meals, avoiding heavy or hot food, alcohol and caffeine.
   - Take salt tablets to replace what's lost in perspiration, if approved by a doctor.
   - Work at a steady pace, minimizing overexertion.
   - Take regular breaks in a cool, well- ventilated area.
   - Know your own limits and ability to work safely in heat.
   - Take fast action for symptoms of heat cramps, heat exhaustion, or heat stroke.

5. Be alert to heat stress symptoms.

Heat exhaustion symptoms include:

- Weakness, dizziness, sometimes nausea.
- Pale or flushed appearance.
- Sweating, moist and clammy skin.

Heat stroke symptoms include:

- Dry, hot reddish skin and lack of sweating
- High body temperature and strong, rapid pulse
- Chills
- Confusion

6. Respond quickly and correctly to heat stress symptoms

Heat Stroke is a medical emergency that can be fatal. Act immediately.

- Move a victim immediately to a cool place and call for medical help.
- Cool the person down as much as possible while waiting for medical help. Use a hose or other means to soak clothes with water and fan the body.
- Monitor breathing.
- Do not give fluids if the person is unconscious.

Heat Exhaustion requires fast response to prevent worse problems.

- Move to a cool place immediately.
- Loosen clothing and place cool wet compresses on the skin.
- Drink water or an electrolyte beverage slowly.
- Elevate feet 8 to 12 inches.

For heat cramps drink water

7. Discussion Points:

Ask participants to discuss the jobs they perform that could create heat stress risks and specifically how they would reduce those risks.

8. Conclusion: Pay attention to your body when you work in the heat

Heat Stress Disorders are serious. Work at a slow, steady pace and drink plenty of water. If an employee appears to be suffering from heat stress disorder, remove him or her from the heat and provide a cool, shaded place to rest. If the employee is disoriented or non-responsive, call for medical assistance immediately. Remember that heat stroke can be deadly and that symptoms demand immediate actions.

9. Test Your Knowledge

Have your employees take the Working in the Heat quiz. By testing their knowledge, you can judge their understanding of how to prevent these accidents and whether you need to review this topic again soon.

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Quiz

WORKING IN THE HEAT QUIZ

1. Perspiration evaporates off the skin and cools the body when it's hot.

a) True b) False

2. The most dangerous, and sometimes even fatal form of heat stress is:

a) Heat cramps
b) Heat stroke
c) Heat exhaustion

3. To prevent heat stress, you should:

a) Try to do all work in the heat as quickly as possible
b) Wear dark, tight clothes
c) Wear loose, light clothes and avoid overexertion.

4. The best thing to drink to prevent heat stress is:

a) Water
b) Beer
c) Soft drinks

5. Heat stroke occurs when:

a) Body temperature rises to dangerous levels
b) The body is drenched in sweat.
c) Muscle pain develops.

6. Symptoms of heat stroke include:

a) Sneezing and coughing
b) Chills, high body temperature, and lack of sweating
c) High energy levels

7. Symptoms of heat exhaustion include:

a) Ringing in the ears
b) Muscle cramps
c) Weakness, sweating, and pale or flushed appearance

8. When heat stroke symptoms occur, you should immediately:

a) Drink fluids
b) Call for a doctor and move to a cool place
c) Do stretching exercises.

9. When heat exhaustion symptoms occur, you should:

a) Move to a cool place and loosen clothes
b) Go to the hospital
c) Keep working

10. You may be more likely to experience heat stress if you're overweight and not used to physical exertion.

a) True b) False

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Quiz Answers

ANSWERS TO WORKING IN THE HEAT QUIZ

1. a. True

2. b. Heat stroke

3. c. Wear loose, light clothes and avoid overexertion

4. a. Water

5. a. Body temperature rises to dangerous levels

6. b. Chills, high body temperature and lack of sweating

7. c. Weakness, sweating, and pale or flushed appearance.

8. b. Call for a doctor and move to a cool place

9. a. Move to a cool place and loosen clothes

10. a. True

Avoid Illness When You Work In The Heat

Take Precautions to Avoid Heat Stress

- Gradually build up hours spent working in heat.
- Wear light, loose clothing.
- Wear a hat outdoors.
- Drink water steadily before and during working in heat.
- Avoid hot foods and drinks that contain alcohol or caffeine.
- Don't overexert yourself; work at a steady pace.
- Take regular breaks in cool places.

Take Actions to Respond to Heat Stress

Heat cramps:

- Drink water

Heat Exhaustion: weakness; dizziness, sweating, moist, pale, or flushed skin

- Move to a cool place.
- Loosen clothes and apply cool compresses.
- Drink water slowly.
- Elevate feet 8-12 inches.

Heat Stroke: No sweating, high body temperature, dry and hot skin, chills, strong rapid pulse, confusion

- Treat as a medical emergency.
- Call for a doctor immediately.
- Move to a cool area immediately.
- Use cool water to soak person's clothes and body.
- Fan the body.
- Don't give fluids if victim is unconscious.